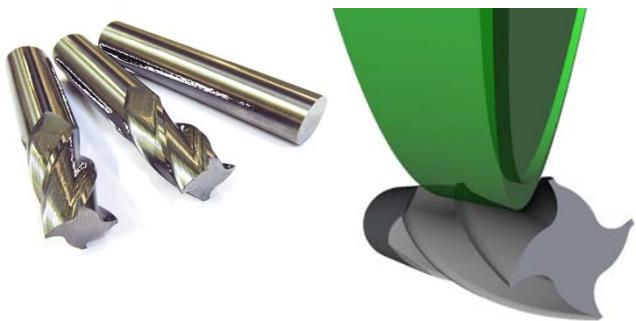


Fluting with Blasogrind HC5

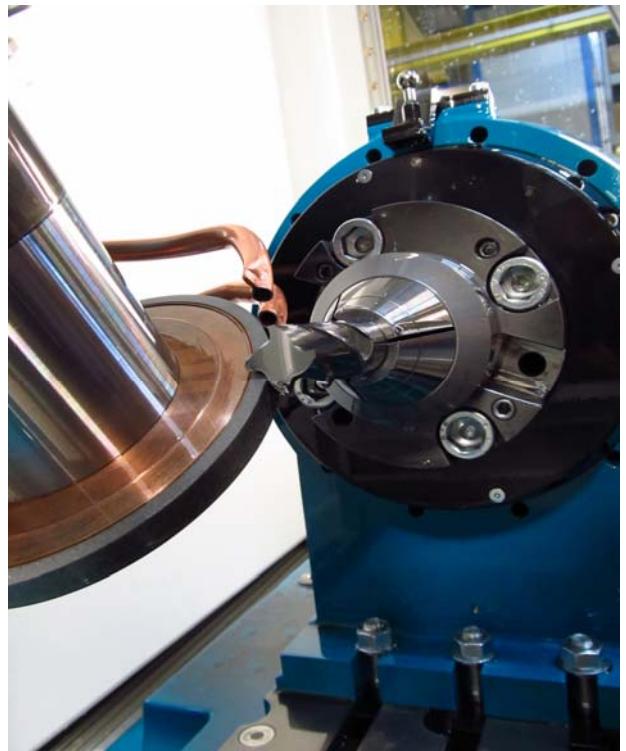
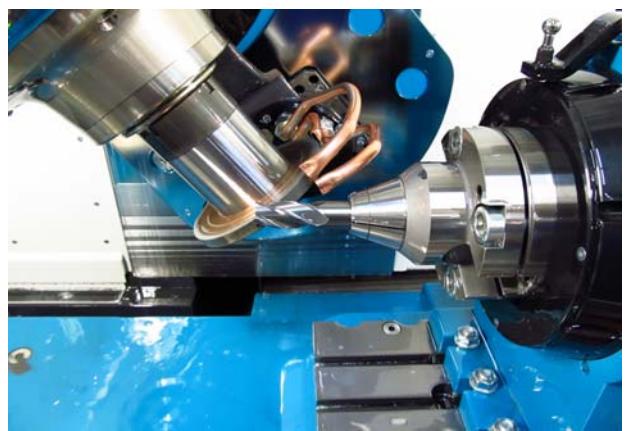
A01-010

Deep creep grinding: 4 Flutes of a carbide endmill were ground in one pass varying the feed from piece to piece for testing the lubrication and cooling capacity of the coolant oil used. Under standard production conditions (Feed from 70 to 100 mm/Min) as well as under extreme grinding conditions (up to 150 mm/Min) the coolant was performant. With the given pressure of the coolant unit (6 bar) the limits of a possible grinding process were reached at a Feed of 150 mm/Min.



1. Cycletime for Production

Workpiece:	Endmill Ø20, CuttingLength 40 mm, Z4, Flutedepth 4.5 mm Material CARBIDE			
Operations	4 Flutes	4 Flutes	4 Flutes	4 Flutes
Feed [mm/Min]	80	100	130	150
Power [kW]	6	7	8	9
Cutting feed [m/s]	18	18	18	18
Used wheels	1	1	1	1
tot. Grinding time [s]	166	135	107	95



2. Used Grinding Wheels

1 1A1 Ø125 Tvrolit Startec HP

3. Machine and Software Requirements

Machines: 5axes CNC grinder: GEMINI DMR 15kW Coolant: Blasogrind HC5
Control: Fanuc 31i

Accessories:

Responsible engineer: OP. 13.12.10

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TECHNOLOGY
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